

The Analyst,

THE ORGAN OF THE

Society of Public Analysts,

A MONTHLY JOURNAL DEVOTED TO THE ADVANCEMENT OF
ANALYTICAL CHEMISTRY.

EDITORIAL COMMITTEE :

OTTO HEHNER.

ALFRED H. ALLEN.

R. H. DAVIES.

BERNARD DYER, D.Sc.

SUB-EDITOR : W. J. SYKES, M.D.

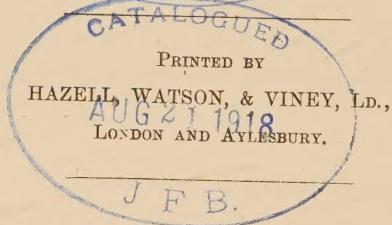
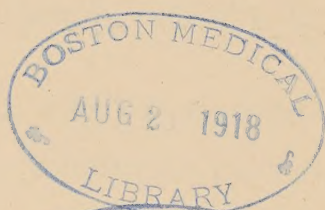
VOLUME XVII.

1892.

LONDON:

BAILLIERE, TINDALL AND COX,

KING WILLIAM STREET, STRAND, W.C.



INDEX TO SUBJECTS.

A.	PAGE
Acetic test for fats, The, F. JEAN ...	194
Acetone, Estimation of, H. STRACHE ...	236
Address, The President's Annual ...	21
Air of Buildings, Determination of Carbon Dioxide in, A. H. GILL ...	184
Albumin in Urine, A sensitive reaction for, E. SPIEGLER ...	195
Alcohol, Note on Tabarie's process for the indirect determination of, S. HARVEY ...	1
„ Note on Tabarie's process for the indirect determination of, A. H. ALLEN ...	5
Alum in potable water, A delicate test for, E. H. RICHARDS ...	14
Alumed Baking Powder on peptic digestion, On the influence of, with remarks on a recent prosecution, O. HEHNER ...	201
Aluminium, The valuation of commercial, A. ROSSEL ...	98
„ The determination of, in steel and alloys, W. SCHÖNEIS ...	176
Ammonia solution, The testing of, J. HERTKORN ...	39
„ in water analysis, Apparatus for determining, G. EMBREY ...	41
Amyl Alcohol, On the determination by Röse's Method, A. SCALA ...	95
APPOINTMENTS:—	
Mr. H. Droop Richmond to the Aylesbury Dairy Company ...	80
Mr. A. E. Ekins to St. Albans ...	160
Arsonic, The recognition of, J. THIELE ...	13
„ The examination of wall paper, carpets, and textile goods for, in Sweden, J. LAUDIN ...	119

B.	PAGE
Babcock method of estimating fat in milk, A. W. STOKES ...	127
„ method of estimating fat in milk, F. L. SHUTT ...	227
Bacteria in suspension, Effect of centrifuging, „ in fatty substances, such as milk, To stain ...	239
Baking Powder, On the influence of alumed, on peptic digestion, with remarks on a recent prosecution, O. HEHNER ..	201
Barium sulphate, Normal sulphuric acid and Decinormal baryta, H. D. RICHMOND ...	166
„ as sulphate from strong solutions of strontium salts, The impossibility of separating, S. CANNEPIN ...	199
Butter, a recent case of the adulteration of, C. E. CASSAL ...	113

	PAGE
Butter, Further experience with alkali-glycerol in the analysis of, LEFFMAN & BEAM ...	65
„ Observations on the analysis of, F. JEAN ...	117
„ Drouot's apparatus for the examination of ...	100
„ On Gamoose, H. D. RICHMOND ...	46
„ The microscopic examination of, by polarised light ...	193
„ Notes on, O. HEHNER ...	101
„ Proportion of water in, A. H. ALLEN ...	104
„ Résumé of a research on the acids of, E. KOEFOED ...	130
„ -fat, SCHRODT & HENZOLD ...	176

C.	PAGE
Calcium sulphate, The use of, in dialysis, C. MORALES ...	16
Carbon in organic substances, A new method for the determination of, K. OKADA ...	237
Carbon dioxide in air, Determination of, A. H. GILL ...	184
Castor-oil seed in feeding stuffs, Detection of, J. W. LEATHER ...	121
Centrifugal machines in analytical and microscopical work, W. THORNER ...	230
Cerous oxide, A reaction of, P. C. PLUGGE ...	56
Certificates, The drawing up of, C. E. CASSAL ...	66
Cholesterolin, The determination of, K. OBERMULLER ...	55
Chrome iron ore, The attack of, by hydrochloric acid under pressure, JANNASCH & VOGTHER ...	57
Citric acid, T. PUSCH ...	238
Cloves, Valuation of the oil of, H. THOMS ..	11
Coal, the Eschka method of determining sulphur in, J. ROTHE ...	13
Coffee "extracts," The composition of, A. DOMERGUE ...	137
Coffee, The analysis of substitutes for, MOSCHELES & STELTZER ...	154
Colour standard for natural waters, A new, H. HAZEN ...	234
Copper, The coloration of preserved foods with, TSCHIRCH ...	11
Copper and antimony, The simultaneous precipitation of, by the electric current, W. HAMPE ...	138
CORRESPONDENCE:—	
Letter from Dr. van Hamel Roos on tins for preserved food ...	20
„ from Dr. Frankland on water analysis ...	120
„ from Mr. Leo Taylor on ditto ...	140
Croton seed, The detection of, in feeding stuffs, J. W. LEATHER ...	121

	PAG
D.	
Desiccators, W. HEMPEL	13
Drouot's apparatus for the examination of butter	100

E.	
Egg, The commercial examination of yolk of, M. F. JEAN	237
Egyptian flour, H. D. RICHMOND	161
Egyptian waters, Some, H. D. RICHMOND ...	163
Enzymes, The action of, some, on milk sugar, H. D. RICHMOND	222

F.	
Fat extractor, A new form, for liquids, A. SMETHAM	44
Fat-extraction and fat-calculation in milk analysis, H. D. RICHMOND	48
Fat in milk products, Determination of, LEE & ALLARD	55
„ A rapid and accurate method of determining, LEFFMAN & BEAM	83
„ Estimation of, by the Babcock method, A. W. STOKES	127
Feeding stuffs, Detection of castor-oil seed and of croton seed in, J. W. LEATHER ...	121
Fats, The acetic test for, F. JEAN	194
Ferments, The recognition of unorganised, in blood, R. KOBERT	37
Ferrocyanide and ferricyanide of potassium, The use of, in analysis, C. LUCKOW ...	15
Fibre, The detection of crude, S. GABIEL ...	155
Flour, Egyptian, H. D. RICHMOND	161
Fluorine, The determination of silica in substances containing, W. HAMPE	8
Foods, The coloring of preserved with copper, TSCHIRCH	11
„ The coloring of, TSCHIRCH	16
„ Poisonous metals in preserved, W. REUSS ...	16
Frozen Meat, A simple method for the detection of, MALJEAN	156

G.	
Galena and lead sulphide, The analysis of, R. BENEDICKT	117
Gamoose, Relation between S.G., fat and S.N.F. in, H. D. RICHMOND	5
Geranium oil in Rose oil, Detection of, G. PANAJOTOW	40
Glycerine in wine, Determination of, M. T. LEOCO	156

H.	
Hübl's iodine-absorption method, D. HOLDE ...	199
„ „ E. DIETERICH	219

I.	
Indicator, A new and delicate, for alcoholic solutions, S. RUHEMANN	133
Iodoform, The estimation of, H. D. RICHMOND	7

	PAGE
Iron, A new process for the estimation of, F. W. ROTHE	233

L.	
Lard, The detection of vegetable fatty oils in, P. WELMANN	59
Lead sulphide and galena, The analysis of, R. BENEDICKT	117
Lead and silver, The quantitative separation of, BENEDICKT & GANS	136
Lead, Detection and estimation of minute quantities of, in the presence of copper and iron, F. L. TEED	142
Leather, The weighting of, B. KOHLMANN ...	98
Leffman-Beam method of determining fat in milk, Note on, O. HEHNER	102
Leffman-Beam method of determining fat in milk, Note on, H. D. RICHMOND	144
LEGAL :—	
Important decision on case of milk adulteration	18
Johnstone v. Tilden and others	138
Jones v. Vestry of Bermondsey, Sale of chicory and coffee	157
Rolph v. Thompson. Samples of milk for analysis	159
Lemons, The essential oil of, W. OLIVERI ...	60
Lime salts, Estimation of, in syrup and sugar products, J. WOLFF	239

M.	
Manganese and cobalt; manganese and nickel; and manganese, cobalt and nickel, Separation of, JANNASCH & FRANZEK	58
Meat, A simple method for detecting frozen, MALJEAN	156
Metal vessels for laboratory use, W. DITTMAR ...	53
Metatitanic acid and the estimation of titanium by hydrogen peroxide, F. P. DUNNINGTON	58
Milk and milk products, On the composition of, P. VIETH	62
„ A rapid and accurate method of determining fat in, LEFFMAN & BEAM ...	83
„ The average composition of, P. VIETH ...	84
„ Soapy, F. J. HERTZ	99
„ Note on the Leffman-Beam method of determining fat in, O. HEHNER	102
„ Contributions to the determination of nitrogen and albuminoids in, L. CARCANO	134
„ Leffman-Beam method of fat estimation in, H. D. RICHMOND	144
„ yielded by an Arab woman, On a sample of, H. D. RICHMOND	161
„ The relation between S.G., fat and S.N.F. in, H. D. RICHMOND	169
„ Estimation of total solids in, H. D. RICHMOND	225
Milks, On the inapplicability of the Werner-Schmid process to the analysis of condensed, B. DYER & E. ROBERTS	81
Milks, The rising of cream in watered, ALLARD	238

INDEX.

v.

	PAGE
Milk analysis, A rapid method of, H. D. RICHMOND ...	50
" " On the Babcock method of, F. L. SCHUIT ...	227
Milk fat, The influence of saccharine matter in the fodder upon the composition of, A. MEYER ...	137
Milk sugar, The action of some enzymes on, H. D. RICHMOND ...	222

N.

Neutrality, A. H. ALLEN ...	186, 215
Nicotine in Tobacco-extract, Estimation of, J. PINETTE ...	178
Nitrogen, A new and rapid method of determining, in organic bodies, W. F. K. STOCK ...	169
" estimation, Supplementary notes on, W. F. K. STOCK ...	152
" process, Notes on Stock's, W. P. SKERTCHLY ...	209
Normal sulphuric acid, decinormal baryta, and estimation of sulphuric acid as barium sulphate, H. D. RICHMOND ...	166

O.

OBITUARIES :—

Bernays, The late Dr. ...	60
Redwood, The late Dr. Theophilus ...	61
Oleic acid, Determination of, O. HEHNER ...	181
Oleorefractometer, Amagat & Jean's, H. D. RICHMOND ...	221
Olive oil, The purity of, LENGFIELD & PAPARELLI ...	196

P.

Pepper, Supplementary note on the analysis of white, W. F. K. STOCK ...	34
Peppermint oil, Examination of, H. ANDRES ...	14
Peptones, The analysis of, C. W. HEATON & S. A. VASEY ...	28
Petroleum, The testing of, H. D. RICHMOND ...	7
Phenacetin, Test for, AUTENRIETH & HINSBERG ...	56
Phenol, New process for the valuation of, L. CARRE ...	12
Phosphoric anhydride in Thomas slag, On the determination of ...	116
Phosphoric acid, A volumetric method for the estimation of, M. SPICO ...	116
Platinic chloride, The examination for purity of, A. F. HOLLEMAN ...	80
Postal transmission of samples, A. ASHBY ...	36
Potassium, Estimation of, as perchlorate, W. WENSE ...	57, 177

R.

Reichert process, Further experience with alkali-glycerol in, LEFFMANN & BEAM ...	65
" " and its modifications, H. D. RICHMOND ...	171

REVIEWS :—

Farm-yard manure, its nature, composition and treatment, by C. M. AIKMAN ...	160
--	-----

	PAGE
Watts' Dictionary of Chemistry, Vol. III. The principal Starches used as food, by W. GRIFFITHS ...	220
Commercial Organic Analysis, by A. H. ALLEN, (Vol. III, Part 2) ...	240
Rose oil, The detection of Turkish essence of Geranium in, G. P. PANAJOTOW ...	40
Rum and its adulterations, A. SCALA ...	79

S.

Saccharin, is it injurious? ...	134
Salicylic acid, The reaction of, K. KOTTMAYER ...	39
Samples, Postal transmission of, A. ASHBY ...	36
Sealing wax, The analysis of, C. MANGOLD ...	52
Silica, The determination of, in substances containing fluorine, W. HAMPE ...	8
Silver and lead, The quantitative separation of, BENEDICT & GANZ ...	136
Slag, The adulteration of basic, B. DYER ...	4
Slag, Thomas, Determination of phosphoric anhydride in, ...	116
Specific gravity of powdered substances, A method of determining, W. J. SMEETH ...	55
Sugar, milk, On the estimation of, A. H. GILL ...	36
Sugar, Alberti & Hempel's method of determining the ash in, SIDERESKY ...	40
Sugar, Alberti & Hempel's method of determining the ash in, ALBERTI & HEMPEL ...	40
Sulphides, Analysis of, JANNARCH, &c. ...	197
Sulphur in coal, The Eschka method of determining, J. ROTHE ...	13
Sulphur in coal, The Eschka method of determining, F. HUNDESHAGEN ...	192
Sulphur in coal gas, Influence of, on determinations of sulphur by fusion, LEEUWEN ...	232
Sulphur, The gravimetric determination of, M. RIPPER ...	233
Sulphur in pyrites cinders, Estimation of, G. LUNGE ...	235
Sulphuric acid, The microchemical detection of, G. DENIGES ...	58
" The gravimetric estimation of free, W. WEINIG ...	99
" Volumetric estimation of, in sulphates, E. STOLLE ...	115
" The rapid determination of in aerated waters, CAZENEUVE & NICOLLE ...	118
Sulphuric Acid in sulphates, Estimation of, A. VON ASBOTH ...	193
Summer excursion ...	141

T.

Tabarie's process for the indirect determination of alcohol, Note on, S. HARVEY ...	1
Tabarie's process for the indirect determination of alcohol, note on, A. H. ALLEN ...	5
Tanning extracts, Estimation of, F. JEAN ...	14
Tartaric acid, The occurrence of metallic lead in, GUILLOT ...	198
" Lead in, C. BUCHEL ...	198

	PAGE
Titanium and metatitanic acid, Determination of by hydrogen peroxide, F. E. DUNNINGTON	58
Tobacco extract, Estimation of nicotine in, J. PINETTE	178

V.

Vanadic acid, New method of estimating, ROSENHEIM & FRIEDHEIM	177
--	-----

W.

Water, The action of, on glass vessels for chemical use, MYLIUS & FÖRSTER... ..	10
Water, A delicate test for alum in potable, E. H. RICHARDS	14

	PAGE
Waters, Some Egyptian, H. D. RICHMOND... ..	163
Waters, New colour standard for natural, H. HAZEN	234
Water analysis, convenient arrangement of, apparatus for determining free and albuminoid ammonia, G. EMBREY	41
Water analysis, Reports on, L. TAYLOR	89
Water-baths, Porcelain, W. DITTMAR	17
Water-marks in paper, A method of discriminating between natural and artificial, W. HERZBERG	136
Wine, Determination of glycerine in, M. T. LECCO	156

Y.

Yeast, compressed, Addition of starch to, unnecessary, J. KIRKLAND.	99
--	----

INDEX OF AUTHORS' NAMES.

A.

	PAGE
ALBERTI & HEMPEL, Method of determining the ash of sugar	40
ALLARD, The Rising of cream in watered milks	238
ALLEN, A. H., Notes on Tabarie's method of determining alcohol	5
„ On the proportion of water in butter	104
„ Neutrality	186, 215
ANDRES, H., Examination of peppermint oil	14
ASBOTH, A., VON, Estimation of sulphuric acid in sulphates	193
ASHBY, A. The postal transmission of samples	36
AUTENRIETH & HINSBERG, Test for phenacetin	56

B.

BENEDICKT, R., On the analysis of galena and lead sulphide	117
BENEDICKT & GANS, The quantitative separation of silver and lead	136
BUCHER, C., Lead in tartaric acid	198

C.

CANNERIN, S., The impossibility of completely separating barium as sulphate from strong solutions of strontium salts	199
CARCANO, L., Contributions to the determination of nitrogen in milk and its products	134
CARRE, L., A new process for determination of phenol	12
CASSAL, C. E., The drawing up of certificates	66
„ On a recent case of butter adulteration	113

	PAGE
CAZENEUVE, & NICOLLE, Rapid determination of free sulphuric acid in aerated waters	118

D.

DENIGES, G., The Micro-chemical detection of sulphuric acid	58
DIETERICH, E., Hübl's iodine absorption method	219
DITTMAR, W., Porcelain water-baths	17
„ Metal vessels for laboratory use	53
DOMERGUE, A., The composition of coffee extracts	137
DUNNINGTON, F. P., Metatitanic acid and the determination of titanium by means of hydrogen peroxide	58
DYER, B., The adulteration of basic slag	4
DYER, B. & E. H. ROBERTS, On the inapplicability of the Werner-Schmid Method to the analysis of condensed milks	81

E.

EMBERV, G., A convenient method for arranging the apparatus used in determining free and albuminoid ammonia	41
--	----

F.

FRANKLAND, E., Letter on water analysis	120
--	-----

G.

GABIEL, S., The determination of crude fibre	155
GILL, A. H., Note on the estimation of milk sugar	36

	PAGE
GILL, A. H., The determination of carbon dioxide in the air of buildings	184
GUILLOT, The occurrence of metallic lead in tartaric acid	198

H.

HAMPE, W., The determination of silica in substances containing fluorine	8
, The simultaneous precipitation of copper and antimony by the electric current...	138
HARVEY, S., Note on Tabarie's process for the indirect estimation of alcohol in beer	1
HAZEN, H., New colour standard for natural waters	234
HEATON, W. & S. A. VASEY, The analysis of peptones	28
HEHNER, O., Notes on butter	101
, Note on the Leffman-Beam method of determining fat in milk	102
, On the determination of oleic acid	181
, On the influence of alumed baking powder on peptic digestion with remarks on a recent prosecution	201
HERZBERG, W., A method of discriminating between natural and artificial water-marks	136
HEMPFEL, W., Desiccators	13
HERTKORN, J., Testing ammonia solution	39
HERZ, F. J., Soapy milk	99
HOLDE, D., Hübl's iodine absorption method	199
HOLLMAN, A. F., The examination of platinic chloride for purity	80
HUNDESHAGEN, F., The determination of sulphur in coal by Eschka's method	192

J.

JANNASCH & VOGTHERR, The attack of chrome iron ore, by hydrochloric acid under pressure	57
JANNASCH & FRANZEK, The quantitative separation of manganese and nickel; manganese and cobalt; and of manganese, cobalt and nickel	58
JANNASCH & C., Analysis of sulphides	197
JEAN, F., Examination of tanning extracts	14
, Observations on butter analysis	117
, The acetic acid test for fat	194
, The examination of commercial yolk of egg	237

K.

KIRKLAND, J., Compressed yeast	99
KOBERT, R., The recognition of unorganised ferments in blood	37
KOEFOED, E., Résumé of a research on the acids of butter	130
KOHLMANN, B., The weighting of leather	98
KOTTMAYER, G., The reaction of salicylic acid	39

L.

LAUDIN, J., The examination of wall paper, carpets and textile goods for arsenic, in Sweden	119
LEATHER, J. W., On the detection of castor-oil seed and of croton seed in feeding stuffs	121
LECCO, M. T. The determination of glycerine in wine	156
LEEUWEN, VAN, Influence of the sulphur in coal gas on determinations of sulphur by fusion	232
LEFFMAN & BEAM, Further experience with alkali-glycerol as the saponifying agent in the Reichert process	65
, , , A rapid and accurate method of determining fat in milk	83
LENGFELD & PAPARELLI, The purity of olive oil	196
LEZE & ALLARD, Determination of fat in milk products	55
LUCCO, C., The use of potassium ferrocyanide and ferricyanide in analysis	15
LUNGE, G., Estipation of sulphur in pyrites cinders	235

M.

MALJEAN, A simple method for the detection of frozen meat	156
MANGOLD, C., The analysis of sealing wax	52
MEYER, A., The influence of saccharine matter in the fodder upon the composition of milk-fat	137
MORALES, C., The use of calcium sulphate in dialysis	16
MOSCHELES & STELZER, The analysis of substitutes for coffee	154
MYLIUS & FOERSTER, The action of water on glass vessels for chemical use	10

O.

OBERMULLER, K., The determination of cholesterin	55
OKADA, K., A new method for the determination of carbon in organic substances	237
OLIVERI, V., The essential oil of lemons	60

P.

PANAJOTOW, G., The detection of Turkish essence of Geranium in Rose oil	40
PINETTE, J., The estimation of nicotine in tobacco extract	178
PLUGGE, P. C., A reaction of cerous oxide	56
PUSCH, T., Citric acid	238

R.

REUSS, W., Poisonous metals in preserved foods	16
RICHARDS, E. H., A delicate test for alum in potable water	14

	PAGE		PAGE
RICHMOND, H. D., The relation between specific gravity, fat and solids-not-fat in the milk of the Gamoose	5	SKERTCHLY, W. P., Notes on Stock's nitrogen process	209
" The estimation of iodoform	7	SMEEDE, W. J., A method for the determination of the specific gravity of powdered substances	55
" The testing of petroleum	7	SMETHAM, A., A new form of fat extractor for liquids	44
" On Gamoose butter	46	SPICO, M., A volumetric method for the estimation of phosphoric acid	116
" A rapid method of milk analysis	50	SPIEGLER, E., A sensitive reaction for albumen in urine	195
" Fat-extraction and fat-calculation in milk analysis	48	STOCK, W. F. K., Supplementary note on the analysis of white pepper	34
" On the Leffman-Beam method of fat estimation in milk	144	" a new and rapid method for the determination of nitrogen in organic bodies	109
" On a sample of milk yielded by an Arab woman	161	" Supplementary notes on a new and rapid method for the determination of nitrogen in organic bodies	152
" Egyptian flour	161	STOKES, A. W., Estimation of fat in milk by the Babcock method	127
" Some Egyptian waters	163	STOLLE, E., Volumetric estimation of sulphuric acid in sulphates	115
" Normal sulphuric acid, barium sulphate, and decinormal barium hydrate	166	STRACHE, H., Estimation of acetone	236
" The relation between specific gravity, fat, and solids-not-fat	169		
" The Reichert process and its modifications	171	T.	
" Amagat and Jean's oleorefractometer	221	TAYLOR, L., Reports on water analysis	89
" On the action of some enzymes on milk sugar	222	TEED, F. L., The detection and estimation of minute quantities of lead in the presence of copper and iron	142
" The estimation of total solids in milk	225	THIELE, J., The recognition of arsenic	13
RIPPER, M., The gravimetric determination of sulphur	233	THOMS, H., Valuation of oil of cloves	11
ROOS, VAN H., Letter on tins for preserved provisions	20	THORNER, W., The use of centrifugal machines in analytical and microscopical work	230
ROTHER, J., The Eschka method of determining sulphur in coal	13	TSCHIRCH, A., The coloration of preserved foods with copper	11
ROTHER, T. W., A new process for the separation of iron	233	" The coloring of preserved foods	16
ROSENHEIM, & FRIEDHEIM, New method of estimating vanadic acid	177		
ROSSEL, A., The valuation of commercial aluminum	96	V.	
RUHEMANN, S., A new and delicate indicator for alcoholic solutions	133	VIETH, P., On the composition of milk and milk products	62
		The average composition of milk (with chart)	84
S.			
SCALA, A., Rum and its adulteration	79	W.	
" On the determination of amyl alcohol by Röse's method	95	WEINIG, M., Gravimetric estimation of free sulphuric acid	99
SHOENEIS, W., Determination of aluminium in steel and alloys	176	WELMANN, P., Detection of vegetable fatty oils in lard	59
SCHRODT, & HENZOLD, Butter-fat	176	WENSE, W., On the estimation of potassium as perchlorate	57, 177
SHUTT, F. L., On the Babcock method of milk analysis	227	WOLFF, J., Estimation of lime salts in syrup and sugar products	239
SIDERESKY, Alberti & Hempel's method of determining the ash of sugar	40		